

**Abstract**

A method is provided for monitoring the status of an optical transmission path employed in a WDM transmission system and for transmitting service data over the optical transmission path. The method begins by transmitting the service data as an optical service signal carried at a first channel wavelength over the transmission path. The method continues by monitoring status information pertaining to the transmission path by receiving an optical monitoring signal in which the status information is embodied. The optical monitoring signal is carried at the first channel wavelength over the transmission path.